

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A combination weighing device, comprising:
a plurality of sets of hoppers, each set having a first hopper that stores articles and a second ~~hopper~~ hoppers that is disposed above the first hopper to supply articles to the first hopper;
a plurality of measuring devices that are arranged with respect to each of the plurality of first hoppers and plurality of second hoppers, the plurality of measuring devices measuring articles in the first hoppers and second hoppers;
calculation means that performs combination calculation based on measurement values of articles of the first hoppers provided by the measuring devices;
determining means that determines whether or not a total measurement value of articles in first and second hoppers of one of the sets of hoppers exceeds a predetermined value when the combination calculation performed by the calculation means is not complete;
and
additional supply means that supplies additional articles from the second hopper to the first hopper when the determining means determines that the total measurement value does not exceed the predetermined value.
2. (Currently Amended) The combination weighing device set forth in claim 1, wherein
the determining means determines[[,]] whether or not the total measurement value of articles in first and second hoppers of another set of hoppers exceeds ~~will exceed~~ the predetermined value.
3. (Original) The combination weighing device set forth in claim 1, wherein
the measurement value is a weight of articles in the first hopper that can be measured by the weighing device.

4. (Original) The combination weighing device set forth in claim 1, wherein the predetermined value is a value based upon article density and the volume of articles that the first hopper can accommodate.

5. (Currently Amended) The combination weighing device set forth in claim 1, further comprising:

a plurality of feeders that respectively correspond to each of the plurality of second hoppers, the plurality of feeders supplying articles to the corresponding second hoppers;

supply quantity control means that controls a quantity of articles to be supplied from the feeders to the second hoppers; and

setting means that sets a supply target value of articles to be supplied by one of the feeders to one of the second hoppers based upon the total measurement value of articles in the set of the first and second hoppers ~~of the set of hoppers~~ and the predetermined measurement value;

wherein the supply quantity ~~target~~ control means controls the quantity of articles to be supplied to the second hopper ~~hoppers~~ of the set of hoppers based upon the measurement value of articles in the second hopper so that the quantity of articles supplied from the feeder ~~feeders~~ to the second hopper equals ~~to~~ the supply target value.

6. (Original) The combination weighing device set forth in claim 5, wherein the supply quantity control means controls the quantity of article to be supplied from the feeders to the second hopper of the set of hoppers based upon a deviation between the measurement value of articles in the second hopper of the set of hoppers and the predetermined supply target value.

7. (Currently Amended) A combination weighing device, comprising:
a plurality of first hoppers that store articles;
a plurality of second hoppers that are disposed above the plurality of first hoppers, each second hopper respectively corresponding to each first hopper and supplying ~~storing~~ articles to ~~in~~ the corresponding first hopper;

a plurality of feeders that respectively correspond to each of the plurality of second hoppers, the plurality of feeders supplying articles to the corresponding second hoppers;

supply quantity control means that controls ~~control~~ the quantity of articles supplied from the feeders to the second hoppers;

a plurality of measuring devices that are arranged with respect to each of the plurality of first hoppers and plurality of second hoppers, the plurality of measuring devices measuring articles in the first hoppers or second hoppers;

setting means that sets a supply target value of articles to be supplied by one of the feeders to one of the second hoppers; and

calculation means that performs combination calculation based on measurement values of articles of the first hoppers provided by the measuring devices; and

wherein the supply quantity control means controls a quantity of article to be supplied from the one of the feeders to the one of the second hoppers based upon a deviation between the measurement value of the articles in the one of the second hoppers which the one of the feeders has supplied and the predetermined supply target value.

8. (Currently Amended) A combination weighing device, comprising:

a plurality of sets of hoppers, each set having a first hopper that stores articles and a second hopper ~~hoppers~~ that is disposed above the first hopper to supply articles to the first hopper;

a plurality of feeders that respectively correspond to each of the plurality of second hoppers, the plurality of feeders supplying articles to the corresponding second hoppers;

supply quantity control means that controls a quantity of articles to be supplied from the feeders to the second hoppers; and

a plurality of measuring devices that are arranged with respect to each of the plurality of first hoppers and plurality of second hoppers, the plurality of measuring devices measuring articles in the first hoppers and second hoppers;

calculation means that performs combination calculation based on measurement values of articles of the first hoppers provided by the measuring devices; and

additional supply means that supplies additional articles from the second hoppers to the first hoppers when the combination calculation performed by the calculation means is not complete;

wherein the supply quantity control means controls the quantity of articles to be supplied from the feeders to the second hoppers so that the total measurement value of the measurement value of articles in the first and second hoppers of a ~~the~~ set of hoppers does not exceed the predetermined value.

9. (Currently Amended) A combination weighing device, comprising:

a plurality of sets of hoppers, each set having a first hopper that stores articles and a second hopper ~~hoppers~~ that is disposed above the first hopper to supply articles to the first hopper;

a plurality of measuring devices that are arranged with respect to each of the plurality of first hoppers and plurality of second hoppers, the plurality of measuring devices measuring articles in the first hoppers and second hoppers;

calculation means that performs combination calculation based on measurement values of articles of the first hoppers provided by the measuring devices;

determining means that determines whether the combination calculation performed by the calculation means is complete;

selection means that performs combination calculation based on measurement values of articles of the first and second hoppers when the combination calculation performed by the calculating means was not complete; and

additional supply means that supplies articles from a ~~the~~ second hopper selected by said selection means to a ~~the~~ corresponding first hopper if the selection means selects the second hopper as a result of the combination calculation.

10. (Currently Amended) A combination weighing device, comprising:

a plurality of sets of hoppers, each set having a first hopper that stores articles and a second hopper ~~hoppers~~ that is disposed above the first hopper to supply articles to the first hopper;

a plurality of measuring devices that are arranged with respect to each of the plurality of first hoppers and plurality of second hoppers, the plurality of measuring devices measuring articles in the first hoppers and second hoppers;

calculation means that performs combination calculation based on measurement values of articles of the first hoppers provided by the measuring devices; and

secondary calculation means that performs, when ~~a combination in~~ the combination calculation performed by the calculating means was complete, combination calculation based on measurement values of articles in the second hoppers and the first hoppers not selected in the combination calculation performed by the calculation means.

11. (Original) The combination weighing device set forth in claim 10, further comprising:

a plurality of feeders that respectively correspond to each of the plurality of second hoppers, the plurality of feeders supplying articles to the corresponding second hoppers; and

supply quantity control means that controls a quantity of articles supplied from the feeders to the second hoppers;

wherein when the combination calculation performed by the secondary calculation means is not complete and when there is an empty second hopper, the supply quantity control means controls the quantity of articles to be supplied from the feeders to the empty second hopper such that the combination calculation performed by the secondary combination calculation means can be completed.

12. (Currently Amended) The combination weighing device set forth in claim 10, wherein

the calculating means determines whether there is a plurality of combinations that completes the ~~in one~~ combination calculation ~~are complete or not~~, and selects from amongst that plurality of combinations a combination that allows the ~~completes a secondary~~ combination calculation performed by the secondary combination calculating means to complete.